Fun in the Sun: Ways to Incorporate Sensory and Movement in Outdoor Environments

Staci Carr, PhD and Teresa Cogar M.Ed.
Housekeeping

• For educational and quality control, we will be recording this zoom session.
• By participating, you are consenting to being recorded.
• Before this session is shared, we will edit to remove identifying information to protect your privacy.
• The Q&A section will be removed and only be shared as an anonymous transcript
What is sensory Processing

- How our nervous system receives messages from our senses and turns it into motor and behavioral responses.
What are our senses?

- SIGHT
- TOUCH
- HEARING
- TASTE
- SMELL

Vestibular
Proprioception
What do we know about sensory processing?

• Whatever you are doing, your successful completion of the activity requires processing sensations
• Everyone experiences sensations differently and we all have likes and dislikes--- preferences
What happens when there is a “flaw” in processing

• A neurological “traffic jam” that prevents certain parts of the brain from receiving the information needed to interpret sensory information correctly.

• This leads to challenges in performing everyday tasks and even high levels of stress
Autism spectrum disorder (ASD) represents a complex developmental disability that is the result of a neurological disorder that affects the normal functioning of the brain.

**Social communication**

- Deficits in reciprocity
- Deficits in nonverbal communication
- Difficulty developing peer relationships

**Sensory processing**

- Hyper (low threshold)- or hypo (high threshold) reactivity to sensory stimulation
Sensory profile

- Measures a person’s response to sensory events in daily life

<table>
<thead>
<tr>
<th>Quadrants</th>
<th>More than others scores in the quadrant (i.e., always—lower numerical scores)</th>
<th>Intervention focus (provide within participation)</th>
<th>Less than others scores in the quadrant (i.e., never—higher numerical scores)</th>
<th>Key characteristic</th>
<th>Intervention focus (provide within participation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Registration</td>
<td>Notices less</td>
<td>Provide more intensity</td>
<td>Notice more</td>
<td>Notices more</td>
<td>Provide more familiarity</td>
</tr>
<tr>
<td>Sensation Seeking</td>
<td>Seeks and enjoys input</td>
<td>Provide more opportunities</td>
<td>Does not seek input</td>
<td>Provides variety</td>
<td>Provide variety</td>
</tr>
<tr>
<td>Sensory Sensitivity</td>
<td>More detection</td>
<td>Provide more structured input</td>
<td>Less detection</td>
<td>Increase awareness</td>
<td>Increase awareness</td>
</tr>
<tr>
<td>Sensation Avoiding</td>
<td>Bothered by input</td>
<td>Make less input available</td>
<td>Less likely to withdraw</td>
<td>Provides organized input</td>
<td>Provides organized input</td>
</tr>
</tbody>
</table>
Your reaction to different stimuli

- **Seeking** – the person actively seeks certain types of sensory input
- **Sensitive** – the person is sensitive to certain types of sensory input
- **Avoiding** – the person avoids certain types of sensory input because they are distressed by it or cannot process it
- **Low registering** – the person does not appear to register the same level of sensory input as others
What it might look like for you

- Easy going maintains focus
- Notices details and has precise ideas
- Creates routines to manage the day
- Creates excitement and change

Dunn, 2010

[Diagram with self-regulation continuum, neurological seeking, and avoiding sensitivities]
<table>
<thead>
<tr>
<th>Sensory Input</th>
<th>Things that I do and that I like...</th>
<th>Things I find hard or do not like...</th>
<th>You can help me by...</th>
</tr>
</thead>
</table>
| Auditory (hearing) | • Listening to music  
• Listening to people read to me  
• Strange noises | • Trying to concentrate when there is a lot of background noise going on | • Offer me a quiet place to retreat to when I am struggling to focus on a task  
• Supporting verbal information with writing, pictures, photos, gestures and facial expressions. |
| Visual (sight)   | • Watching the laundry go round in the washing machine  
• Watching people preparing food  
• People watching | • Although I enjoy busy environments this can become too much for me after a while | • Taking me to a quieter area if it is too busy for me to concentrate  
• Allowing me to watch my laundry or busy people, as I like this, but offer a quiet environment afterwards to give me a chance to process this information  
• Giving me opportunities to view different kinds of scenery when out on the bus  
• Organising off-peak times for outings |
| Olfactory (smell) | • Conventionally pleasant smells, I enjoy the smells of cooking and laundry  
(No major preferences noted) | • Conventionally unpleasant smells  
(No major aversions noted) | • Giving me access to sensory activities (e.g. smelly products for the bath/shower, laundry powder when doing the washing). This will give me a richer sensory diet even though it is not a particular difficulty for me. |
| Oral (taste)     | • I prefer sweet foods like chocolate and biscuits  
• I like a lot of sauce  
• I can overeat at times until I am sick | • I don’t like vegetables | • Encouraging me to explore different foods and choose the foods I like  
• Encouraging me to eat crunchy or chewy snacks  
• Offering me a sports bottle or straw to drink from  
• Helping me to understand portion sizes |
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<tr>
<td><strong>Tactile (touch)</strong></td>
<td>• Personal space</td>
<td>• Getting my hands messy, I don’t even like using liquid soap</td>
<td>• Providing me with enough personal space</td>
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<tr>
<td></td>
<td>• Short sleeves</td>
<td></td>
<td>• If you need to touch me, let me know before you do this</td>
</tr>
<tr>
<td></td>
<td>• Pulling my trousers up high</td>
<td></td>
<td>• Offering bar soap instead of liquid</td>
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<tr>
<td></td>
<td>• Adjusting my clothes regularly</td>
<td></td>
<td>• Allowing me to wear gloves during messy activities if I choose</td>
</tr>
<tr>
<td></td>
<td>• Deep pressure massage</td>
<td></td>
<td>• Letting me clean my hands and face when I need to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Using deep pressure touch rather than light pressure touch where needed</td>
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<td></td>
<td></td>
<td></td>
<td>• Trying an electric toothbrush</td>
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<td><strong>Vestibular</strong></td>
<td>• Jumping</td>
<td>• I can sometimes find uneven surfaces, such as deep shingle at the beach, a bit difficult and may want to hold on to someone</td>
<td>• Allowing me to jump and bounce</td>
</tr>
<tr>
<td><strong>(balance)</strong></td>
<td>• Swings</td>
<td></td>
<td>• Providing opportunities to access vestibular activities as they help me to calm, such as going to playgrounds, riding bicycles, boat trips, horse riding</td>
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<td></td>
<td>• Bouncing on the trampoline</td>
<td></td>
<td>• Facilitating regular bus rides</td>
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<td></td>
<td>• Cycling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Horse riding</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Sailing</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Roller coasters</td>
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</tr>
<tr>
<td><strong>Proprioception</strong></td>
<td>• Bouncing on the trampoline</td>
<td>• If I don’t have regular breaks I can get tired easily</td>
<td>• Providing me with alternative, more appropriate proprioceptive activities on a regular basis – trampoline, deep pressure massage, weighted therapy</td>
</tr>
<tr>
<td><strong>(body awareness)</strong></td>
<td>• Deep pressure massage</td>
<td></td>
<td>• Giving me functional tasks - fetching and carrying heavy objects such as boxes or taking the rubbish or recycling out. This engages me in gross motor activities which provide me with proprioceptive feedback</td>
</tr>
<tr>
<td></td>
<td>• Cycling</td>
<td></td>
<td>• Timetabling short periods of high stimulus activity in between periods of “quiet time” or sedentary activities</td>
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<td></td>
<td>• Ripping up clothing</td>
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Gooda, 2016
How can knowing this information help?

• Reduce stress
• Regulate mood
• Reduce behaviors caused by stress
• Improve interactions
• Increase and improve engagement
• Improve quality of life
What can you do this summer (or anytime)

- Determine if your child has a hyper or hypo reaction to each sensory system
- Create activities outside that your child likes but does not dysregulate them
- Use special interests to get them engaged
- Be creative (this doesn’t have to cost a lot)
Summer Fun Sensory Ideas

Ocean play dough

THE IMAGINATION TREE
Helpful Websites for Sensory Activities and Equipment

- www.sensorygoods.com
- www.acheivementproducts.com
- www.autismproducts.com
- www.flaghouse.com
- www.afforabletherapysolutions.com
- www.specialneedstoys.com
- www.funandfunction.com
- www.southpaw.com
- www.therapro.com
OK

LET'S CHAT
# Upcoming Topics

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 16th, 2020 12:00</td>
<td>Lunch and Learn: A three-part series addressing autism and early childhood (Part 1)</td>
<td>Alicia Hart and Stephanie Paul</td>
</tr>
</tbody>
</table>

Registration Link:  
[https://vcu.zoom.us/meeting/register/tJItcOmprDMvG9XuFNIwo6nrTeOPJz_TPOzg](https://vcu.zoom.us/meeting/register/tJItcOmprDMvG9XuFNIwo6nrTeOPJz_TPOzg)  
Or, go to the [www.vcuautismcenter.org](http://www.vcuautismcenter.org) and click on Lunch and Learn
For questions or more information

Please visit:

www.vcuautismcenter.org

Or

e-mail: autismcenter@vcu.edu